

CLAIM AMENDMENTS

Listing of Claims:

What is claimed is:

1-21 (cancelled)

22. (original) A digital contents distribution server connected to a first network and for providing digital contents to a second network connected to the first network, the server comprising:

means for dividing the digital contents into a plurality of packets;

means for storing a list including destinations included in the second network;

means for transmitting packets of a minimum unit for constructing the digital contents from the server through the first network to the second network;

dynamic allocation means for dynamically allocating, by use of the list, the destinations to the second network to which the packets of the minimum unit are transmitted;

means for receiving receipt notices from the destinations;

means for selecting a destination serving as an intermediate node by use of the receipt notices; and

means for transmitting the packets of the minimum unit by use of the destination selected as the intermediate node.

23. (original) The server according to claim 22,

wherein the dynamic allocation means comprises:

means for registering, with the server, a time when the server transmits the packets of the minimum unit to a predetermined destination;

means for registering, with the server, a time when a client having the

predetermined destination issues the receipt notice of the packets of the minimum unit; and
means for calculating a time difference between the transmission time and the receipt notice issuance time.

24. (original) The server according to claim 22, further comprising:

a destination list; and

means for dynamically updating the destination list in association with a change of a construction of the second network.

25.(previously amended) A client for receiving digital contents distributed through a first network and constructing a second network connected to the first network, the client comprising:

means for receiving, through the first network, dynamically allocated packets of a minimum unit constructing digital contents divided into a plurality of packets;

means for receiving packets for reconstructing the digital contents through the second network; and

means for making clients included in the second network hold the digital contents therein by use of the packets of the minimum unit received through the first network and packets received from other clients through the second network.

26. (original) The client according to claim 25, further comprising: means for preparing a receipt notice including a time of receiving the packets of the minimum unit.

27. (original) The client according to claim 25, further comprising: means for identifying the packets of the minimum unit from the packets received from the other clients.

28. (original) The client according to claim 25, further comprising:

a list of members constructing the second network; and

means for updating the list in any of cases where a client is added to and deleted from the second network.

29. (previously amended) A digital contents distribution system for distributing digital contents to a predetermined wide area group through first and second networks, the system comprising:

a server connected to the first network and for holding therein and transmitting the digital contents; and

a plurality of groups constructed by including clients constructing the second network connected to the first network and for constructing the wide area group for receiving and providing the digital contents,

wherein the server comprises means for dividing the held digital contents into a plurality of packets and transmitting packets of a minimum unit for constructing the digital contents to the clients in the group by dynamically allocating the packets without overlap, and

wherein each of the clients having received the packets of the minimum unit comprises means for distributing copies of the packets of the minimum unit received from the server to all of the clients constructing a group including the each client and another client constructing another group.

30. (previously amended) A server connected to a first network and for holding therein and distributing digital contents through the first network to a wide area group including a plurality of groups connected through a second network, the server comprising:

means for creating packets of a minimum unit by dividing the held digital contents into a plurality of packets;

means for selecting distribution destinations of the packets of the minimum unit in such a manner that identical packets of the minimum unit are not overlapped for a predetermined group; and

means for transmitting and dynamically allocating the packets of the minimum unit for constructing the digital contents to clients of the selected destinations in the group.

31. (original) The server according to claim 30, wherein the means for creating packets of a minimum unit comprises means for creating packets of a minimum unit including data for distributing a copy of the packets of the minimum unit at least to another group.

32. (previously amended) A method for controlling a computer as a server for holding therein and distributing digital contents through a first network to a wide area group including a plurality of groups connected through a second network, the method making the computer execute the steps of:

creating packets of a minimum unit by dividing the held digital contents into a plurality of packets;

selecting and registering therewith distribution destinations of the packets of the minimum unit in such a manner that identical packets of the minimum unit are not overlapped for a predetermined group;

storing data of the selected distribution destinations as the packets of the minimum unit; and

reading and transmitting, for constructing the digital contents, the stored packets of the minimum unit to clients of the selected distribution destinations in the group while dynamically allocating the read-out packets.

33. (cancelled)

34. (previously amended) A computer readable recording medium recording therein a program for controlling a computer as a server for holding therein and distributing digital contents through a first network to a wide area group including a plurality of groups connected through a second network,

wherein the program makes the computer execute the steps of:

creating packets of a minimum unit by dividing the held digital contents into a plurality of packets;

selecting and registering therewith distribution destinations of the packets of the minimum unit in such a manner that identical packets of the minimum unit are not overlapped for a predetermined group;

storing data of the selected distribution destinations as the packets of the minimum unit; and

reading and transmitting, for constructing the digital contents, the stored packets of the minimum unit to clients of the selected distribution destinations in the group while dynamically allocating the read-out packets.

35. (original) A client connected to a second network for distributing digital contents through a first network and the second network to a predetermined wide area group and constructing a group of the wide area group, the client comprising:

means for receiving packets through any of the first and second networks and for judging whether or not the received packets are packets of a minimum unit for reconstructing the digital contents; and

means for creating a copy packet from the received packets in response to the judgment and for distributing the copy packet at least to a client of another group.

36. (original) The client according to claim 35, wherein the means for distributing a copy packet comprises means for reading at least a copy destination in another group from the received packets and for distributing the created copy packet to the read copy destination when the received packets are judged to be the packets of the minimum unit.

37. (original) The client according to claim 36, further comprising: storage means for storing a list of the copy destinations therein.

38. (original) A method for controlling a computer as a client connected to a second network for distributing digital contents through a first network and the second network to a predetermined wide area group and constructing a group of the wide area group, the method making the computer execute the steps of:

receiving packets through any of the first and second networks and storing the received packets in a memory;

judging whether or not the received packets are packets of a minimum unit for reconstructing the digital contents;

when the received packets are judged to be the packets of the minimum unit, creating a copy packet from the received packets in response to the judgment and distributing the copy packet at least to a client of another group; and

when the received packets are judged not to be the packets of the minimum unit, storing the received packets in the memory.

39. (cancelled)

40. (original) A computer readable recording medium recording therein a program for controlling a computer as a client connected to a second network for distributing digital

contents through a first network and the second network to a predetermined wide area group and constructing a group of the wide area group,

wherein the program makes the computer execute the steps of:

receiving packets through any of the first and second networks and storing the received packets in a memory;

judging whether or not the received packets are packets of a minimum unit for reconstructing the digital contents;

when the received packets are judged to be the packets of the minimum unit, creating a copy packet from the received packets in response to the judgment and distributing the copy packet at least to a client of another group; and

when the received packets are judged not to be the packets of the minimum unit, storing the received packets in the memory.

41. (original) An on-network digital contents sharing method for sharing predetermined digital contents in clients connected through a plurality of networks, in which the predetermined digital contents are converted into a plurality of continuous stream data, and packets of a minimum unit necessary to reconstruct the predetermined digital contents are transmitted from a server through the networks, the method comprising the steps of:

selecting the clients requiring distribution of the predetermined digital contents by reading a client list;

transmitting the packets of the minimum unit to the selected clients;

making the clients having received the packets of the minimum unit store the packets of the minimum unit in memories thereof, create copy packets and distribute the copy packets to other clients except for the clients having received the packets;

storing the copy packets received from the other clients in the memories; and

making users share the predetermined distributed digital contents by reconstructing

the packets in the memories.